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(56) Documents Cited
EP 0747585 A2 EP 0599321 A1 EP 0323256 A2
US 5782092 A US 5228292 A

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(54) Abstract Title
Control system for the supercharging pressure of a turbocharged internal combustion engine

(57) The variable geometry of the engine turbine is adjusted by an actuator 7 controlled by the system which includes: an open-loop control device 2 using at least one characteristic curve responding to engine speed and fuel injection quantity; a turn-off, closed loop regulating device 3 responding to the deviation ΔP_2 of the actual and desired supercharging pressure; a changeover device (4, Figure 2) for turning the regulating device on and off; and a precontrol device 5 for calculating a pre-control pulse duty factor for adding to the operating path 1 via adder 12. Device 5 responds to the over- or under-shooting of a gradient of the deviation ΔP_2 from a predefined window to provide better torque control under transitional conditions.

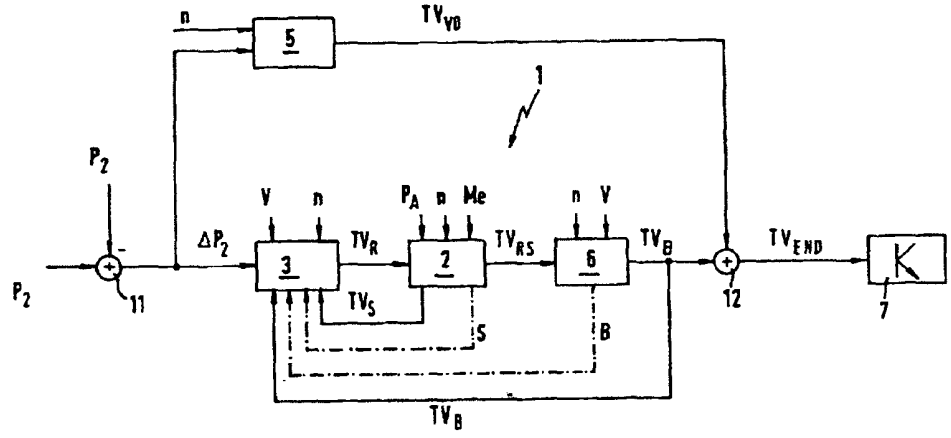

FIG.1

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